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AUTHOR McDaniel, Ernest
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ABSTRACT

A new teacher observation scale is described and teacher ratings are related to measures of self concept and attitude toward school. Different results are obtained when analysis employs change measures of these variables in comparison with status measures. The teaching dimensions of "cognitive demand" and "warmth" seem to be important variables associated with school related feelings and attitudes. (Author)

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Some Relationships Among Teacher Observation Data and Measures of Self Concept and Attitude Toward School

Ernest McDaniel

Purdue University

Abstract

A new teacher observation scale is described and teacher ratings are related to measures of self concept and attitude toward school. Different results are obtained when analysis employs change measures of these variables in comparison with status measures. The teaching dimensions of "cognitive demand" and "warmth" seem to be important variables associated with school related feelings and attitudes.

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A paper presented at the annual meeting of the American Psychological Association, Washington, D.C., September, 1976.

Some Relationships Among Teacher Observation Data and Measures of Self Concept and Attitude Toward School

Ernest McDaniel
Purdue University

Ernest McDaniel
Educational Psychology & Research
Purdue University, SCC-G
W. Lafayette, IN 47907

Time Requested: 15 min.

This paper describes a new teacher observation scale and relates teacher ratings to measures of self concept and attitude toward school. Some methodological considerations for such studies are considered.

Observation and recording of teaching behavior is a rapidly growing research methodology. The well known review by Rosenshine and Furst (1973) identify a group of teaching behaviors which have consistently shown an association with measures of student achievement: clarity, variability, enthusiasm, task-oriented, criticism, teacher indirectness, student opportunity to learn material, use of structuring comments, and multiple levels of questions or cognitive discourse. It seems plausible that some of these variables would contribute to an atmosphere of acceptance in the classroom and to making learning more acceptable. A positive relationship between these teaching behaviors and pupil measures of affective variables might be expected.

As part of a larger study (McDaniel, Ames, Anderson, Cicirelli, Feldhusen, Felsenthal, Kane, Lohmann, Moe, and Wheatley, 1973) a set of teacher observation scales was developed to measure many of the teaching behaviors identified in the Rosenshine review. Ratings of teachers have been collected with this observation instrument along with measures of effective growth among pupils in a pilot longitudinal study.

Instruments

Observation Rating Scales. This instrument provides for observing teaching behavior on nine dimensions:

1. Warmth. The extent to which the atmosphere of the class is relaxed and comfortable; the degree to which the teacher maintains positive interpersonal relationships with pupils.

2. Enthusiasm. The enthusiasm or interest level expressed by the teacher and students during class activities.

3. Clarity. The clarity of communication, instructions and expectations conveyed to the students.

4. Variety. The extent to which the teacher uses a variety of materials and activities.

5. Individualization. The degree to which the teacher provides students with different levels of work that are suited to their particular needs, interests and abilities, and the amount of individual assistance provided.

6. Feedback. The extent of communication to the student of information about the adequacy, acceptability, completeness or correctness of his response.

7. Cognitive Demand. The level of intellectual activity that the teacher expects from the student.

8. Freedom. The degree to which the teacher provides arrangements which facilitate independence and individual freedom.

9. On-Task Activity. The amount of student activity that is directed toward the accomplishment of instructional objectives.

The scales are high inference scales. Observers rate the teacher on a six point scale for each dimension. Each point on the scale is defined by a set of illustrative behaviors. For example, in order to assign a teacher a rating of "2" on the warmth scale, the rater must decide that the teacher matches the following description better than any of the other descriptions defining a scale position:

> This teacher is formal and distant in his relationships with students. He is insensitive to students' feelings. Students do not approach him with their problems. This teacher is lesson-centered to the extent that getting the job done takes priority over responding to students in a tactful or considerate way.

Observers are trained with four filmed samples of teaching behavior and a training manual (McDaniel, 1974) which provides ratings and rationale for each of the samples of teaching behavior. Reliability coefficients of nine trained observers rating the filmed teaching samples independently have been computed using analysis of variance procedures for multiple judges (Winer, 1971). These coefficients range from .95 for warmth to .79 for freedom.

Piers-Harris Self Concept Scale (Piers, 1969). This scale contains 80 items. The child indicating whether the statement seems generally true by marking yes or no on an answer sheet. Example items include: "I am an important member of my class." "I behave well at home." "I have nice hair." The scale provides five scores (Stanwyck, 1972): behaving self, school self, feeling self, social self, body self and total. The reliability (KR-20) of these scores range from .89 for the total score to .58 for social self for a group of 185 fourth grade students.

Attitude Toward School (Meier and McDaniel, 1975). This scale contains 45 items. The child responds by indicating degree of agreement on a five point scale ranging from strongly agree to strongly disagree. Examples include: "Schoolwork is interesting to me." "I wish I had a different teacher." "I am happy when the school day begins." The scale provides four scores: Attitude Toward Schoolwork, Attitude Toward Teacher, Attitude Toward School in General and Total.

Procedure

Data have been collected over the past three years on a group of children starting the fourth grade in 1972-73. These children were finishing the fifth grade in at the time the present revision of the Observation Rating Scales was completed. Thus, this study presents data on children and their teachers gathered in the 17 fifth and 11 sixth grade classes. Teachers administered the self-concept scale to their own classes. The Attitude Toward School scale was administered while the teacher was out of the room by a person external to the school staff.

All observations of fifth grade teachers were done by a single individual. Observations of the sixth grade teachers were accomplished by five different observers. Observers were trained approximately 3 hours using two of the four filmed samples of teaching behavior. Teachers were observed only once; each observation lasting from 30 to 50 minutes. All testing and observation was done during the spring months of each school year.

Three analyses were performed. The first looks at the relationships among teaching behaviors and concurrent affective measures. The second examines relationships among teaching behaviors and changes in affective measures. The third examines the relationships among changes from fifth to sixth grade teacher and changes in affective measures. That is, if pupils move from a cold fifth grade teacher to a warm sixth grade teacher, do feelings about self and school show an improvement?

Results

In the first analysis, the correlation matrix of the 9 teacher observation ratings and the 10 scores of the affective measures for 17 fifth grade teachers revealed only one significant correlation at the .05 level: Variety and Attitude Toward Teacher (.52).

In the second analysis, correlations among teacher observations and mean change scores for the affective variables were computed. Change scores were obtained by subtracting the fifth grade scores from the sixth grade scores for all pupils in a particular sixth grade class. Correlations were computed for 11 sixth grade teachers.

With this procedure, the correlation matrix revealed 8 significant correlations: Enthusiasm with Self Concept School (.72), Clarity with Self Concept Feeling (.66), Feedback with Attitude Toward School in General (-.77), Cognitive Demand and Self Concept School (.65), Cognitive-Demand with Attitude Toward Schoolwork (.65), Cognitive-Demand with Attitude Toward Teacher (.65), Cognitive-

Demand with Attitude Total (.65), and On-Task with Self Concept School (.83). Only 7 of the coefficients are in the expected direction.

In the third analysis, correlations were computed among mean change scores of the affective measures and increments of change in the observational data between the feeder teacher and the receiving teacher. Thus, if a fifth grade teacher with a minimum score (1) on the warmth scale sent children to a sixth grade teacher with a maximum scale score (6), then the increment of change would be a plus 5 for that group of children. Conversely, moving from an extremely warm teacher in the fifth grade to an extremely cold teacher in the sixth grade would be reflected by an increment of change of minus 5. In short, by subtracting the ratings of the fifth grade teacher from the rating of the sixth grade teacher provided an increment of change in teaching behavior for each of the nine scales on the observation instrument.

Increment scores representing shifts in teaching behavior were computed for 21 groups of pupils. The number of pupils in each group ranged from 5 to 24.

The correlation matrix produced through these procedures showed 3 significant correlations: Warmth with Self Concept School (.58), Warmth with Self Concept Behavior (.54), and Warmth with Self Concept Total (.61).

Discussion and Conclusions

This study seems to have both methodological and substantive implications. When examining concurrent relationships between teaching behavior student feelings about themselves and school, only one significant relationship was found in a matrix of nine teaching behaviors and ten affective dimensions. Using a change score for the affective dimensions, eight significant correlations are found. In this group of correlations Cognitive Demand was most frequently associated with changes in self concept and attitude toward school.

When change scores in the affective dimensions were related to a change measure of teaching behavior, i.e., how the present teacher compared to the one

before, the number of significant correlations dropped to three. All three of these correlations reflected a single teacher dimension, warmth and its relation to aspects of the self concept.

These findings suggest some advantages in designing studies of teaching so that both teaching behavior and student growth can be analyzed in terms of increments of change. The findings also point to cognitive demand and warmth as teaching behaviors playing important roles in the emerging perceptions of pupils about themselves as they relate to school.

References

McDaniel, E. D. Manual for Observer Rating Scales. Purdue Educational Research Center, Purdue University, West Lafayette, Indiana, 1974.

McDaniel, E. D., Ames, C. A., Anderson, J. G., Cicirelli, V., Feldhusen, J. F., Felsenthal, H. M., Kane, R. B., Lohmann, J. J., Moe, A. J., & Wheatley, G. H. Longitudinal Study of Elementary School Effects: Design, Instruments, and Specifications for a Field Test. Final Report, OEC-0-725283, Purdue Educational Research Center, Purdue University, West Lafayette, Indiana, 1973.

Meier, R. & McDaniel, E. D. Development of the Attitude Toward School Inventory, Grades 4-6. A paper presented at the annual meeting of the American Psychological Association, Chicago, August 31, 1975.

Piers, E. V. Manual for the Piers-Harris Children's Self Concept Scale. Nashville, Tenn.: Councelor Recordings and Tests, 1969.

Rosenshine, B. & Furst, N. "The use of Direct Observation to Study Teaching." In Travers, Robert M. W. (ed.) Second Handbook of Research on Teaching, Chicago: Rand McNally, 1973.

Stanwyck, D. J. Self-concept development: A longitudinal study. Unpublished doctoral dissertation, Purdue University, 1971.

Winer, B. J. Statistical Principles in Experimental Design (2nd ed.). New York: McGraw Hill, 1971.